Certificate of Analysis

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Analytical services

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Inovační 122
252 41 Zlatníky-Hodkovice
Czechia
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Verify Results Online

Sample Identification

Sample Name	Thymosin Alpha-1
Batch Number	XD-TA10-PO07
Date Published	2026-09-08 05:07

Results for LYO-0774

Peptides	Result	Unit	Uncertainty	Acceptable Range
Thymosin Alpha-1 Assay Peptide Screening 0.1% TFA	8.05	*mg*	[± 0.04]	
Thymosin Alpha-1 Purity Peptide Screening 0.1% TFA	99.8	*%*	[± 0.5]	
Thymosin Alpha-1 Identification by Spectrum Peptide Screening 0.1% TFA	963		[± 5]	
Thymosin Alpha-1 Identification by RT Peptide Screening 0.1% TFA	0.999		[± 0.005]	

Microbiology	Result	Unit	Uncertainty	Acceptable Range
Bacterial Endotoxin Chromgenic USP<85>/ Eur. Ph. 2.6.14. Bacterial Endotoxin Chromgenic Test	0.456	*EU/mg*	[± 0.009]	

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1. Content Assesment

1.1. Instrumentation

Module	Name	Serial Number
System Controller	Shimadzu CBM-40 Lite	L221226351398
Degassing Unit	Shimadzu DGU-403	NA
Pump	Shimadzu LC-40B XR	L22146350580
Autosampler	Shimadzu SIL-40C XR	L22216351622
Colum Thermostat	Shimadzu CTO-40S	L22236351602
PDA Detector	Shimadzu SPD-M40	L22276352808
SQ MS Detector	Shimadzu LCMS-2050	O12476200760

1.2. Chromatographic conditions

Chromatographic conditions	
Eluent A	0.1% DFA in Water (HPLC, Gradient Grade)
Eluent B	0.1% DFAin Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.8 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	60°C
Column	Waters XSelect CSH C18, 100x2.1mm 2.5µm
Detection wavelength	225nm

Gradient Program		
Time [min]	A [%]	B [%]
1	98	2
13.99	35	65
14	5	95
15	5	95
15.01	98	2
19	end	

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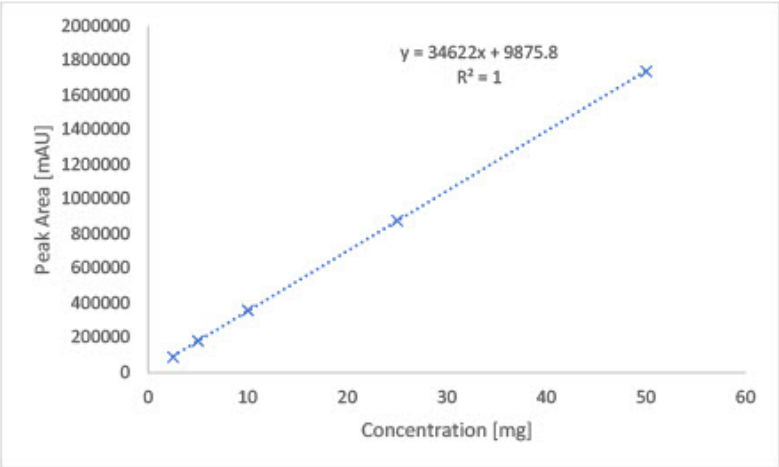
1.3. Sample preparation

Whole amount of container was dissolved in 2mL of water (LCMS Grade). 100 µL of sample was transferred to HPLC vial and diluted by 900 µL water (LCMS Grade) and submitted for analysis.

1.4. Calibration curve

Calibration curve detail	
Quantitative method	External Standard
Calibration Type	Linear
Number of calibration points	5
Force through Zero	Enabled
Weighting Method	None



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2. Purity assessment

2.1 Instrumentation

Module	Name	Serial Number
System Controller	Shimadzu CBM-40 Lite	L221226351398
Degassing Unit	Shimadzu DGU-403	NA
Pump	Shimadzu LC-40B XR	L22146350580
Autosampler	Shimadzu SIL-40C XR	L22216351622
Colum Thermostat	Shimadzu CTO-40S	L22236351602
PDA Detector	Shimadzu SPD-M40	L22276352808
SQ MS Detector	Shimadzu LCMS-2050	O12476200760

2.2 Chromatographic conditions

Chromatographic conditions	
Eluent A	0.1% DFA in Water (HPLC, Gradient Grade)
Eluent B	0.1% DFAin Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.8 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	60°C
Column	Waters XSelect CSH C18, 100x2.1mm 2.5µm
Detection wavelength	225nm

Gradient Program		
Time [min]	A [%]	B [%]
1	98	2
13.99	35	65
14	5	95
15	5	95
15.01	98	2
19	end	

2.3 Purity assesment

Purity of compound assesed by area normalization method, comparing area of each peak to sum of area of all peaks detected at wavelenght of 225 nm.

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Analysis Report

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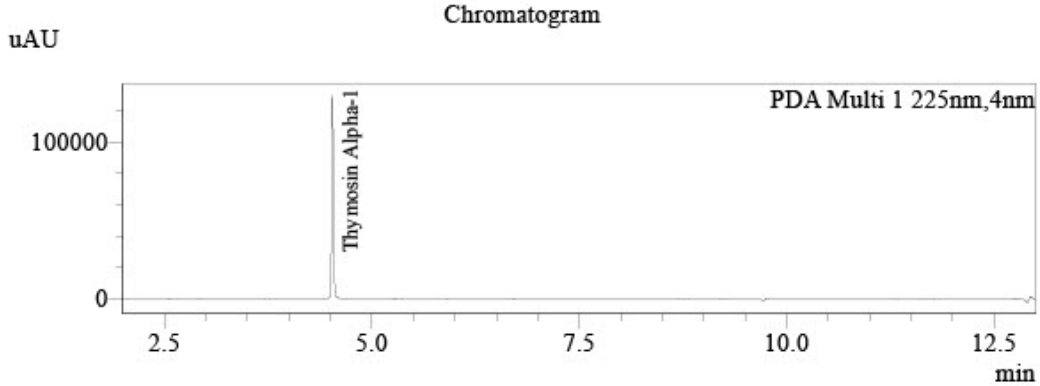
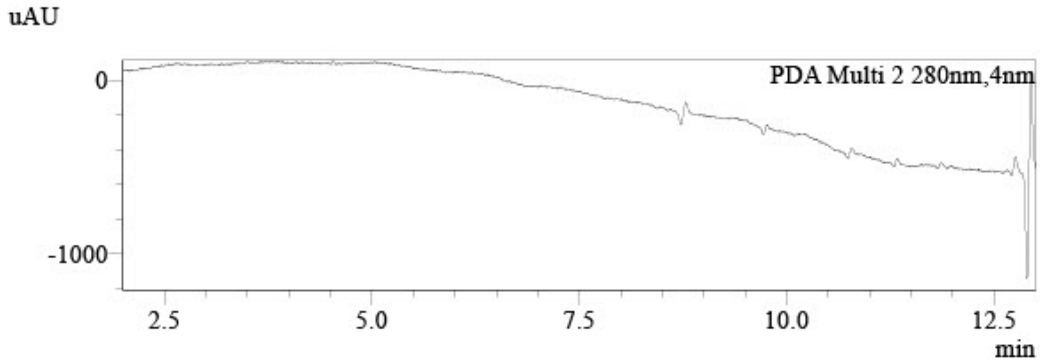
Analysis of quantity and purity of active ingredient by UHPLC with UV detection

Sample Information

Injection Volume	: 2
Data File	: LYO-0774__017.lcd
Method File	: Peptide Screening_DFA_Group C.lcm
Date Acquired	: 9/4/2026 3:10:28 AM

Chromatogram





Peak Table

PDA Ch1 225nm

Name	Ret. Time	Area	Conc.	Unit	Area%
	4.083	100	0.000		0.051
	4.448	216	0.000		0.110
Thymosin Alpha-1	4.524	195644	8.048	mg	99.757
	4.637	125	0.000		0.064
	4.683	35	0.000		0.018
		196119			100.000

Peak Table

PDA Ch2 280nm

Name	Ret. Time	Area	Conc.	Unit
	12.758	2770	0.000	
	12.944	3699	0.000	
	14.218	1017	0.000	
		7486		

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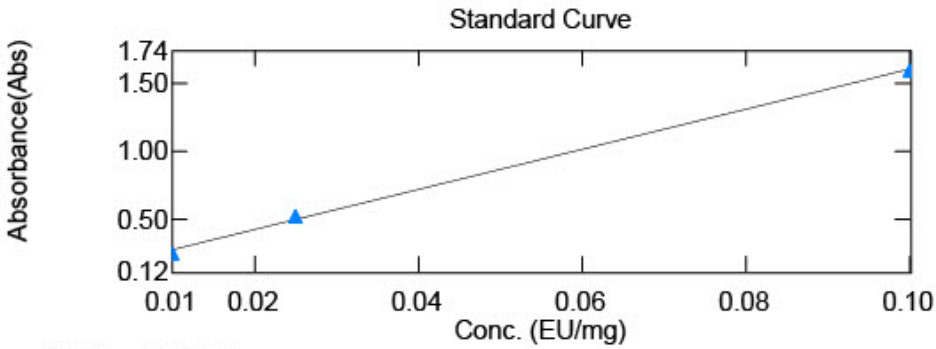
Endotoxin Determination Report

File Information
Filename: C:\UVVis-Data\Data\File_260903_204104.vqud
Date/Time: 09/03/2026 09:40:26 PM

Instrument Information
Instrument Type: UV-1900 Series
Model (S/N): UV-1900i (A12536253123)



y = 14.7148 x + 0.132903
r2 = 0.99870

	Sample Name	Conc	Raw_WL545.0	Dilution Rate
1	LYO-0745	0.055	0.1732	20.00
2	LYO-0746	-0.026	0.1141	20.00
3	LYO-0747	2.977	1.2279	40.00
4	LYO-0748	-0.034	0.1076	20.00
5	LYO-0749	-0.042	0.1268	100.00
6	LYO-0750	-0.083	0.0716	20.00
7	LYO-0752	1.909	0.8353	40.00
8	LYO-0753	0.931	0.8176	20.00
9	LYO-0754	2.152	0.9247	40.00
10	LYO-0755	2.610	1.0929	40.00
11	LYO-0756	-0.025	0.1143	20.00
12	LYO-0757	-0.317	0.0862	100.00
13	LYO-0767	0.152	0.2445	20.00
14	LYO-0768	0.589	0.5665	20.00
15	LYO-0769	3.621	1.4649	40.00
16	LYO-0770	1.007	0.8736	20.00
17	LYO-0771	0.148	0.2419	20.00
18	LYO-0772	3.598	1.4565	40.00
19	LYO-0773	-0.045	0.0999	20.00
20	LYO-0774	3.668	1.4823	40.00

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	Sample Name	Conc	Raw_WL545.0	Dilution Rate
21	LYO-0775	3.612	1.4616	40.00
22	LYO-0776	4.197	1.6769	40.00
23	LYO-0777	3.621	1.4648	40.00
24	LYO-0780	0.768	0.6977	20.00
25	LYO-0781	-0.021	0.1171	20.00
26	LYO-0782	-0.025	0.1148	20.00
27	LYO-0783	0.244	0.3121	20.00
28	LYO-0784	0.031	0.1557	20.00
29	LYO-0785	0.000	0.1329	20.00
30	LYO-086	4.729	1.0027	80.00
31	LYO-0787	3.923	1.5759	40.00
32	LYO-0788	0.099	0.2057	20.00
33	LYO-0789	1.454	1.2027	20.00
34	LYO-0790	0.264	0.3270	20.00
35	LYO-0791	1.650	0.7397	40.00
36	LYO-0792	14.164	1.4355	160.00
37	LYO-0793	-0.021	0.1176	20.00
38	LYO-0794	-0.164	0.1088	100.00

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Responsibles

Mr. Ján Galbavý
CEO

Analysis results relate only to the samples tested.
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